

Title (en)
High-modulus iron-based alloy and a process for manufacturing the same.

Title (de)
Legierung auf Stahlbasis mit hohem Modul und Verfahren zu deren Herstellung.

Title (fr)
Aciers à modules élevés et procédé de leur fabrication.

Publication
EP 0659894 A3 19951115 (EN)

Application
EP 94120574 A 19941223

Priority
• JP 35446793 A 19931227
• JP 6759094 A 19940311

Abstract (en)
[origin: EP0659894A2] A high-modulus iron-based alloy containing at least one boride dispersed in an iron or iron-alloy matrix. The boride may be one of a Group IVa element, or a complex boride of at least one Group Va element and iron. A mixture of an iron or iron-alloy powder and a powder of at least one boride containing a Group IVa or Va element is compacted and sintered to make a shaped high-modulus iron-based alloy product.

IPC 1-7
C22C 38/00

IPC 8 full level
C22C 33/02 (2006.01)

CPC (source: EP US)
C22C 33/0292 (2013.01 - EP US); **B22F 2998/10** (2013.01 - EP US)

Citation (search report)
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• [X] EP 0433856 A1 19910626 - KEMPTEN ELEKTROSCHMELZ GMBH [DE]
• [X] JÜNGLING, SIGL, OBERACKER, THÜMLER AND SCHWETZ: "NEW HARDMETALS BASED ON TiB₂", PLANSEE PROCEEDINGS, VOL.2, 13TH INTERNATIONAL PLANSEE SEMINAR 1993, REFRACTORY METALS AND HARD MATERIALS., 24 May 1993 (1993-05-24) - 28 May 1993 (1993-05-28), REUTTE, TIROL, AU, pages 44 - 66
• [A] SMID, I., KNY, E.: "Evaluation of Binder Phases for Hardmetal Systems Based on TiB₂", INT. J. REFRACT. HARD MET., vol. 7, no. 3, UNIVERSITY OF VIENNA, METALLWERK, PLANSEE, pages 135 - 138
• [A] PATENT ABSTRACTS OF JAPAN vol. 13, no. 372 (C - 627) 17 August 1989 (1989-08-17)
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• [A] PATENT ABSTRACTS OF JAPAN vol. 12, no. 297 (C - 519) 12 August 1988 (1988-08-12)

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Designated contracting state (EPC)
DE FR GB

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EP 0659894 A2 19950628; EP 0659894 A3 19951115; EP 0659894 B1 20050504; DE 69434357 D1 20050609; DE 69434357 T2 20060309; US 5854434 A 19981229

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